

REMARKS

Claims 1 - 13 are pending, with claims 2 - 6, and 8 - 13 having been withdrawn from consideration as drawn to a non-elected invention.

The drawings stand objected to under 37 CFR 1.83(a) for not illustrating “the chief ray corresponding to the largest half-field angle” and the “half-field angle of a ray incident onto the image pickup surface”. In response to this objection, the Office Draftsperson has been requested to enter replacement drawing sheets 1 - 8 in lieu of the drawing sheets 1 - 7 as originally filed. The requested changes to the drawing figures are as follows: in Fig. 7(a) the symbols  $wy$  and  $wy'$  have been added in order to illustrate that which was claimed in claim 1 as filed. Also, Fig. 7(c) has been added to show an enlarged view of the lens portion of Fig. 7(a) in order to more clearly indicate the angles  $wy$  and  $wy'$ . The above changes to the drawings are believed to **not** constitute “new matter”, since the symbols  $wy$  and  $wy'$  were described in the disclosure as filed, and Figs. 7(a) and 7(c) merely make clear in the replacement drawings that which was adequately described in the disclosure as filed.

The specification has been amended above at page 6 so as to refer to Figs. 7(a) - 7(c) in lieu of the description in the specification as filed that referred to Figs. 7(a) and 7(b). Also, Table 3 has been amended to refer to the ‘chief ray’ rather than to the - - main ray - - .

Claims 1 and 7 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, on the basis that claims 1 and 7 contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that applicant had possession of the claimed invention. More specifically, the Examiner states that the angle  $wy'$  (which is described in the disclosure as filed as being “the angle at which the chief ray corresponding to the largest half-field angle is incident onto the image pickup surface”) and the angle  $wy$  (which is described in the disclosure as filed as being “the half-field angle of a ray incident onto the image pickup surface”) are not adequately described in the disclosure as filed. Reconsideration of this rejection is respectfully requested. From viewing Figs. 7(a) and 7(c) of the replacement drawing sheets, it is respectfully submitted

that Applicant clearly “had possession of the claimed invention” at the time that the application was filed. The deficiency of the disclosure as filed was merely in not illustrating that which was claimed in claim 1 of the original disclosure. Moreover, it is respectfully submitted that the requested changes to Fig. 7(a) and the addition of Fig. 7(c) do not comprise “new matter” since these figures merely illustrate that which was described in the disclosure as filed. Finally, although claims 1 and 7 have not been rejected under ‘lack of enablement’, it is submitted that one of ordinary skill in the art would indeed have been enabled to practice the invention as originally claimed from the disclosure that includes the replacement drawing sheets 1 - 8. Therefore, it is respectfully submitted that the requirements of 35 U.S.C. 112, first paragraph, have been met, since case law has held that a disclosure need **not** be enabling to one of ordinary skill in the art **as filed**, so long as it is enabling to one of ordinary skill in the art when the patent issues and no “new matter” is added during prosecution. Of course, in addition, it is required that the specification contain antecedent basis for that which is claimed.

Claims 1 and 7 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite, on the basis that “they are not adequately described in the specification and figures, as noted above”. Reconsideration of this rejection is respectfully requested on the basis that, with the aid of the substitute drawings, one of ordinary skill in the art would know how to measure the angles  $wy'$  and  $wy$ . Whereas the angle  $wy'$  is the angle at which the chief ray corresponding to the largest half-field angle is incident onto the image pickup surface, the angle  $wy$  is the half-field angle of a ray incident onto the image pickup surface, as measured on the object side of optical system. Although admittedly, this was not clear from the definition alone as filed, it is submitted that clarifying this issue (via the angles  $wy$  and  $wy'$  being illustrated in the drawings) does not comprise “new matter” for the following reasons:

(1) it is well-known that the terms “field angle” and “half-field angle” as used in the art of optics to refer to angles measured on the object side of an optical system. The wording “half-field angle” is usually used to define the angle of a ‘chief ray’, which therefore is measured on the object side of the optical system. Therefore, the angle  $wy$  is the angle between the optical

axis and the chief ray that forms the largest field angle on the object side of the optical system;

(2) in Table 3 as filed, the angle  $wy$  was designated as “half-field angle”, whereas the angle  $wy'$  was designated as “exit angle of main ray”. As would be immediately apparent to one of ordinary skill in the art, the ‘chief ray’ and the ‘main ray’ are synonyms, and thus correspond to the same ray. Thus, one of ordinary skill in the art would immediately recognize from Table 3 as filed that the angle  $wy'$  is the angle of the chief ray as measured on the exit side of the optical system; and

(3) as filed, there was a distinction in the manner in which  $wy'$  and  $wy$  were defined. Whereas  $wy$  was defined directly as being a “half-field angle” (indicating it is measured on the object side of the optical system, as noted above),  $wy'$  was **not** defined directly as being either a half-field angle or a field angle, but rather was defined as “the angle at which the chief ray corresponding to the largest half-field angle is incident onto the image pickup surface” (emphasis added).

Having:

(1) clarified in the drawings how the angles  $wy$  and  $wy'$  are measured, without adding new matter,

(2) provided corrected drawing sheets in compliance with 37 CFR 1.121(d),

(3) provided an adequate written description so as to comply with 35 U.S.C. 112, first paragraph, without adding new matter, and

(4) described in the specification and figures, without adding new matter, the manner in which  $wy$  and  $wy'$  are measured,

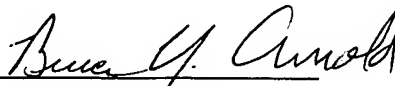
it is respectively requested that an early Notice of Allowability be provided.

A letter to the Chief Draftsperson accompanies this submission, requesting that

replacement drawing sheets 1 - 8 be entered in lieu of the drawing sheets 1 - 7 as filed.

Respectfully submitted,

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Attachment: Letter to Chief Draftsperson  
Annotated Marked-up Drawings (for the two drawing sheets being changed)

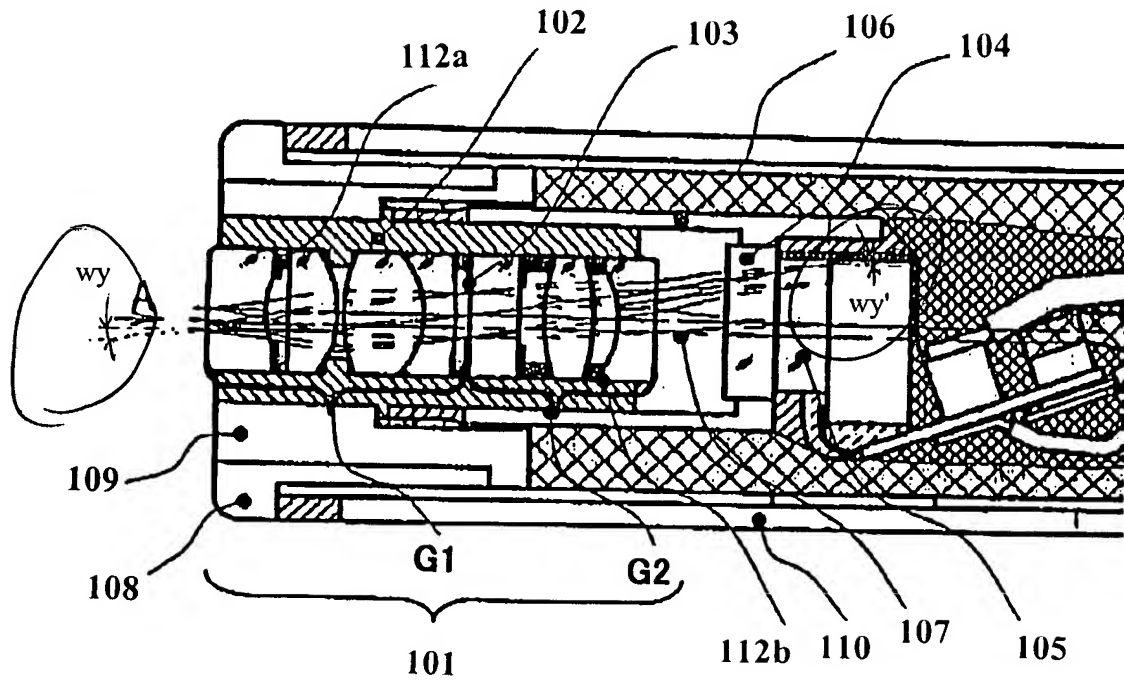


Fig. 7(a)

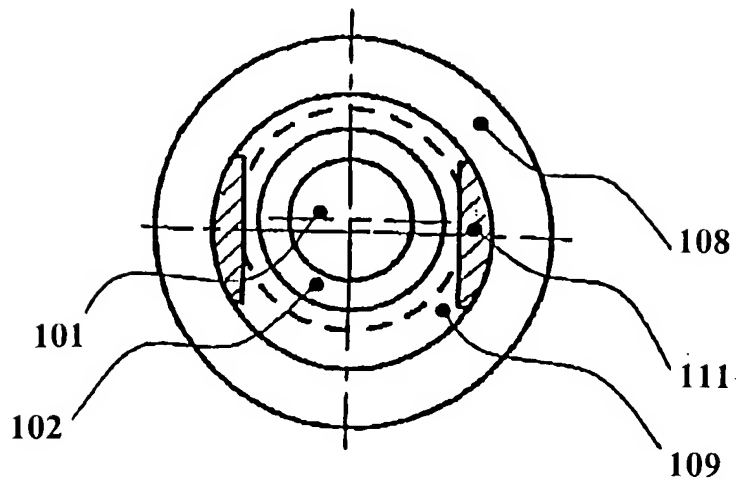


Fig. 7(b)

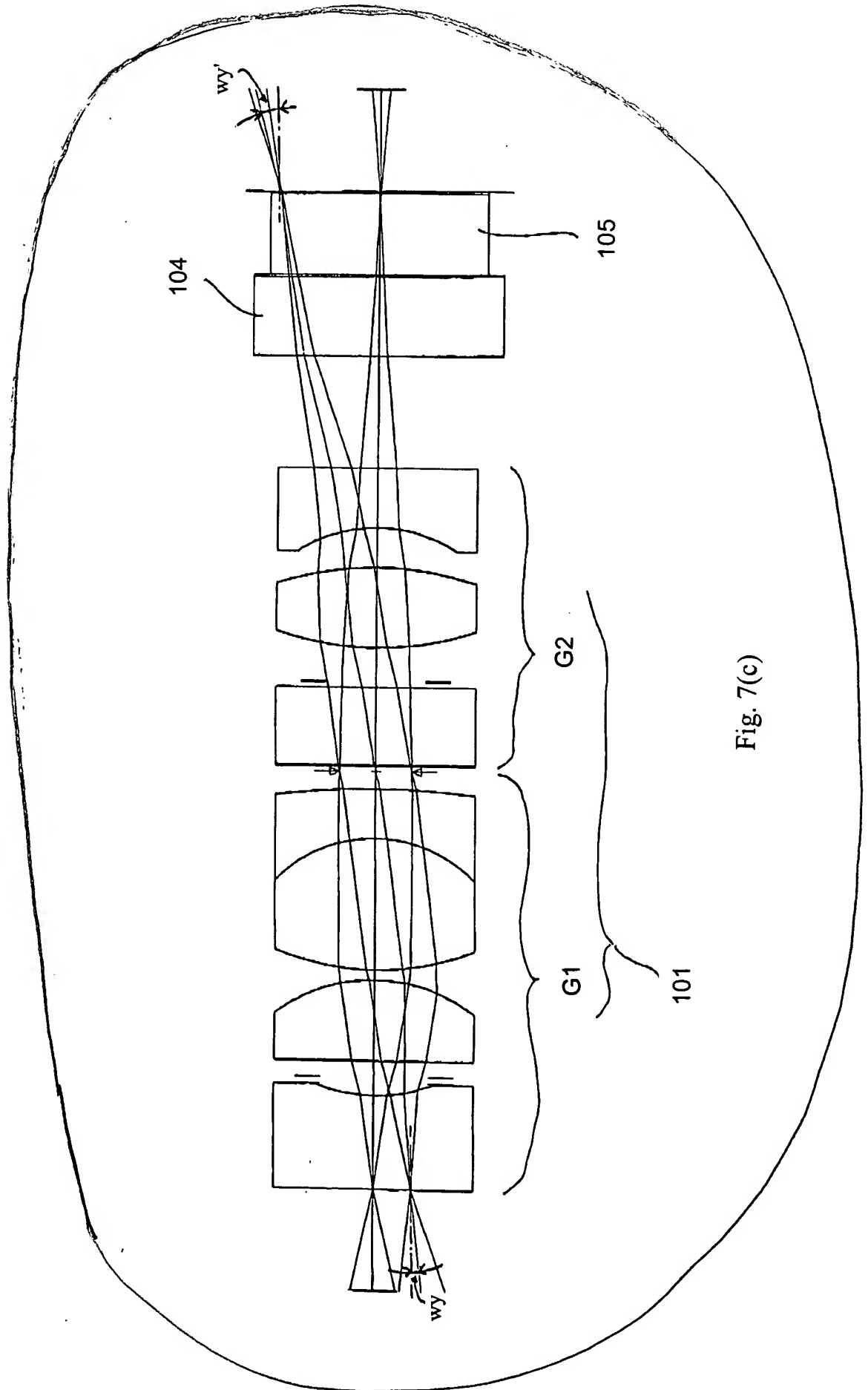


Fig. 7(c)

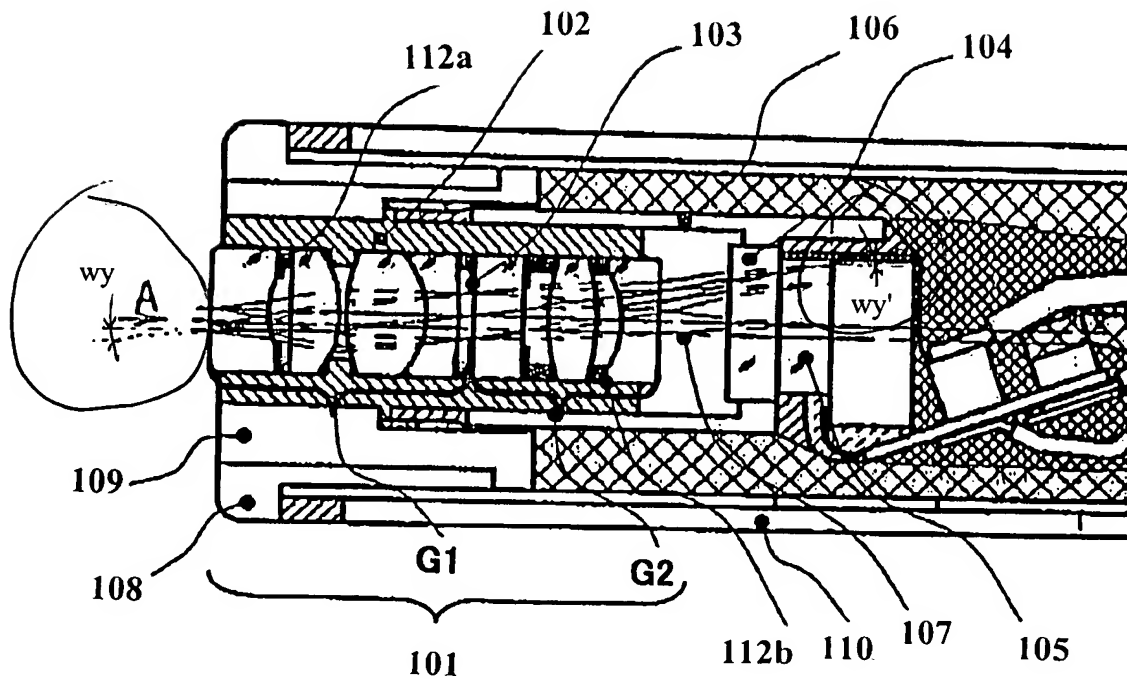


Fig. 7(a)

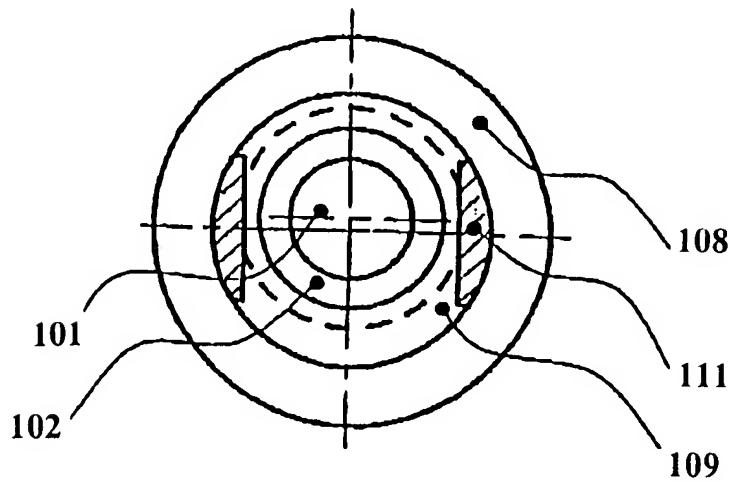


Fig. 7(b)

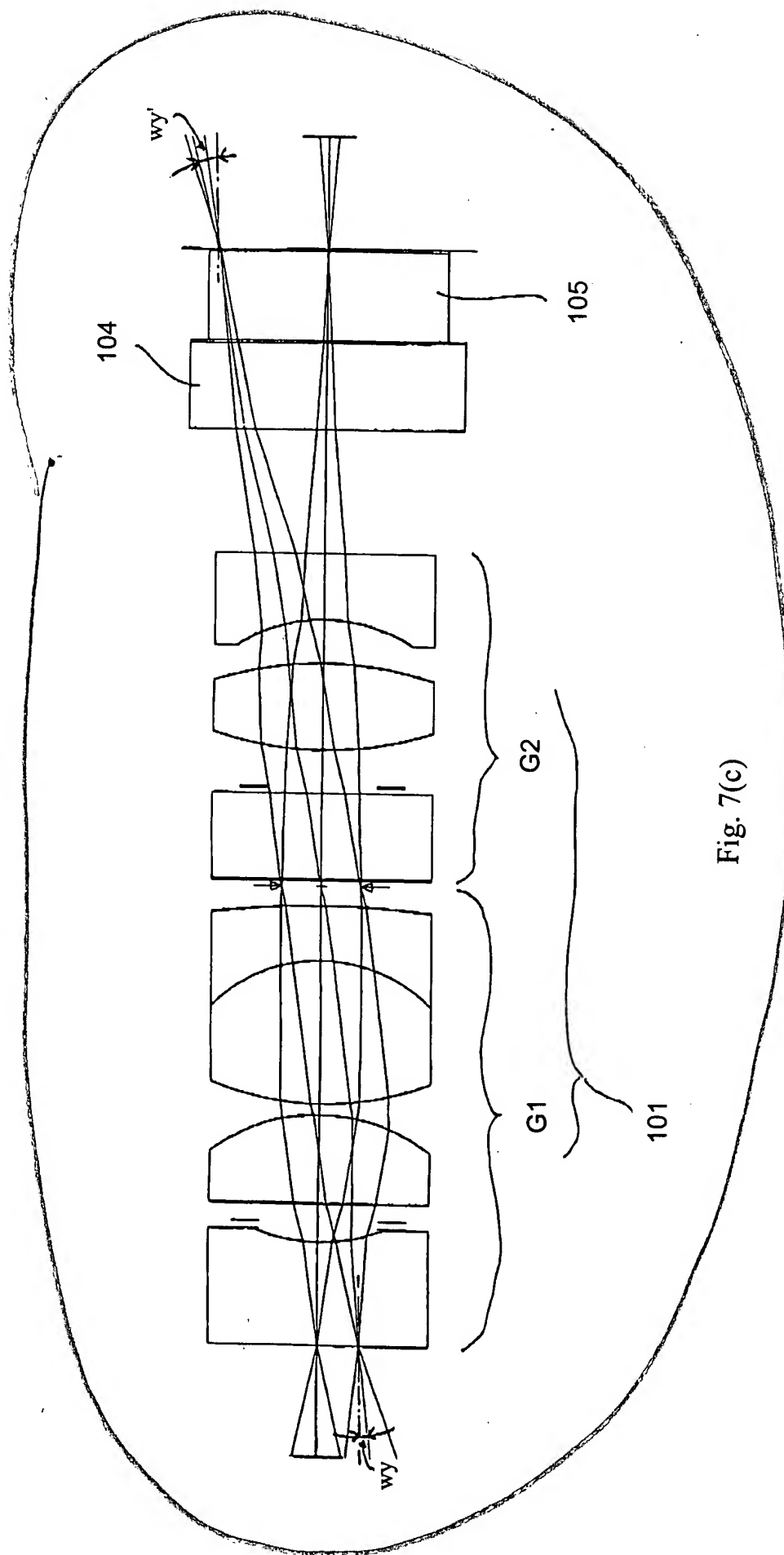


Fig. 7(c)